## Executive Summary for 1940

Texas has by far the largest rural population in the United States, as well as a highly diverse and rapidly growing citizenry. Texas also has well-educated population centers boasting a vibrant high tech industry, resulting in arguably the nation's most significant digital divide. WCX, who is partnering with the University of Texas at Austin and their proposed TOPP middle-mile project, will attack this problem in 9 specific rural areas which are the target of this application. We have directly partnered with several unserved cities/communities and will extend the middle mile solution being created by the University of Texas and USFon Inc., to the homes of the unserved population in primarily Blanco and Burnet counties. As can been seen throughout this application we have worked to directly include community leaders, schools, medical facilities, community centers (18 total to connect via fiber and counting). We also partner with the largest existing non broadband internet provider in the area.

#### **Team**

WCX is lead by Lowell Feldman who is also a valued member of the University of Texas faculty. In addition to being a Communications and Technology Law Professor, Dr. Feldman has over 15 years of experience in building and operating communications companies and is also the Chairman of the innovative non-profit provider called USFon -- a company started by his students 3 years ago. Dr. Feldman was the founder and CEO of what is now Alpheus Communications and pioneered the use of DWDM gear in the state of Texas. His vision led to what is now a healthy alternative broadband provider which is focused on major urban markets in Texas.

Brian DeHaven is the Operations Manager, with over 9 years of telecommunications industry experience, particularly with small telecommunications companies serving rural Texas.

Vice President of Engineering, Soren Telfer has over 10 years experience building complex hardware and software systems and has spent the last 5 years developing communications protocols, communications software, applications and hardware.

Rich Lewis is the Chief Financial Officer, with over 20 years experience in finance and accounting.

WCX is also backed by Main Street Mezzanine which is a publicly traded banking company on NASDAQ under the ticker MAIN.

While our BIP project does not require the need for WCX to grow the current \$2 Million revolving facility we have with MAIN, we invite conversations with MAIN to discuss their confidence in our team and in our ability to execute. In the event that we are not funded by BIP and instead receive grants from BTOP, MAIN has offered to increase its credit line under its current loan agreement as described in the financial section of this application to meet the match criteria. Importantly we also view the communities as a valuable member of our team. To date WCX's Parent has raised \$2,658,706 in equity.

In working with people ranging from Judge Guthrie of Blanco County to great brownie bakers at the Briggs community center, to the many electric cooperatives in our territory, our team has built momentum from their enthusiasm and we stand ready to serve their pressing needs to join the digital world.

#### **Technical Solution and Innovation**

Given the desire to develop innovative solutions that will decrease in cost over time and be well-adapted to rural settings, we will initially partner with Transio and Motorola for a majority of our WiMax/4G equipment. More importantly we will endeavor to create direct fiber connections to the core towers we will use in service delivery. We also expect significant advances in vendor equipment in the near term and will not hesitate to partner with additional vendors once their equipment has been field tested.

The key technical aspects of our solution are a leverage of recently-released 4G wireless broadband standards such as mobile WiMAX and LTE and use the 3650 spectrum. The residential fixed service will provided in a medium form-factor CPE that can be placed near a window facing the base station, or when necessary, may need an outside antennae. Peak data rates are forecasted at 8 Mbps with more typical burst rates in the 2-5 Mbps range depending on proximity to the base station. The CPE will output both Ethernet and WiFi so the customer can connect all their devices to the single CPE. Mobile and fixed voice service will be provided primarily for emergency, law enforcement, and medical services through a similar, slightly more expensive CPE but with a smaller form factor.

#### **COMMUNITY NEED**

These 9 specific communities were targeted based upon an initial study and the fact that the community leaders and existing electric service providers targeted these communities as not having broadband access. In our follow up field work we verified that the lack of broadband infrastructure and available retail service has a daily affect on the ability for these community members to partake in our information society. This is evidenced by not only our research in identifying and studying these locations, but also by the testimonials of the community areas.

## **Open Access**

WCX will be operated with clear open access guidelines in terms of making connections, daily operations, and non-discrimination of packets. We will strive to exceed the standards of openness set by the FCC, and set the bar in the broadband industry for fairness and transparency. We will peer with USFon and the University of Texas as well as the Texas medical network THINC so that rural medical and educational operate as intended.

## **Promoting competition**

Our goal is to clearly deliver superior services and gain market share. This said, one of our major partners is also a potential competitor.

By both of us working with the community leaders we realized that

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Since WCX is a CMRS certified ETC and ETP in the State of Texas PUC, our network requirements our more rigorous and we will ensure that 911 and back-up power is engineered.

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We have also solicited and found 18 initial Anchor Community Partners who we will connect via fiber fed services as a Middle-Mile solution. WCX will charge \$500 per month. All legal use will be encouraged, including potential uses that can compete for retails services. This overt open policy can encourage multiple providers of broadband and anchor use. Because of the three page limit of this section we cannot list all the eligible anchor/non-profit institutions and partners, but we have done so in answer to question 18.

# Maximum rural penetration and sustainability

Understanding the balance between the costs of building infrastructure and reaching the greatest number of people possible is key to successful implementation and sustainability. To maximize rural penetration, we utilize our extensive knowledge of fiber and wireless technologies to create a sustainable rural service model. WCX relies on our existing status as a Certified ETC and ETP in Texas, and our existing ability to provide CMRS phone services. In essence we have already signed the social contract to provide certain services at rates that are determined to be in the public interest – and we intend to honor this contract with respect to our broadband services as well. Please review our affordability statement where we voluntarily provide Broadband Discounts to users who also qualify for low income support for voice services.

### THE BOTTOM LINE

Collectively this project will: • directly employ over 21 people for operations in this area;

- will employ 40 people through sub-contracts during the build-out phase;
- make broadband service available to 10,000 people in current unserved locations which in turn can help provide job opportunities to these people including competitive communications businesses:
- provide 2,836 retail broadband connections to these areas;
- invest \$9,059,663 into infrastructure in these areas;
- coordinate and directly peer with the University of Texas and the Texas Health Information Network Consortium to deliver health and educational opportunities to these rural areas;
- connect 18 Community Anchor Institutions on our fiber network including schools, community centers and hospitals.

This project also has received the support of the community and has the financial ability and expertise to deliver.